

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below-named inventor, Michael A. Tischler, Thomas F. Kuech and Robert P. Vaudo, we hereby declare that my residence, post office address and citizenship are as stated below next to my name.

I believe I am the original first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "**Bulk Single Crystal Gallium Nitride and Method of Making Same**", the specification of which

(check one) is attached hereto.
 was filed on October 21, 1997 as Application Serial No. 08/955,168
 and was amended _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed
 yes No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this specification is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

08/188,469 January 27, 1994 Patented-U.S. Patent 5,679,152 issued 10/21/97

(Application Number) (Filing Date) (Status-Patented Pending abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

STEVEN J. HULTQUIST, REG. NO. 28,021
OLIVER A. ZITZMANN, REG. NO. 38,691

All correspondence in connection with this application should be sent to:

Steven J. Hultquist
Intellectual Property/Technology Law
P. O. Box 14329
Research Triangle Park, NC 27709
Telephone: (919) 419-9350

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of sole or first inventor

Michael A. Fischer

Inventor's Signature



Date 3/30/98

Residence: 311 W. Helena, Phoenix, Arizona 85023

Citizenship: USA

Post Office Address: 311 W. Helena, Phoenix, Arizona 85023

Full Name of second inventor: Thomas F. Kuech

Inventor's Signature



Date 3-24-98

Residence: 3713 Council Crest, Madison, Wisconsin 53711

Citizenship: USA

Post Office Address: 3713 Council Crest, Madison, Wisconsin 53711

Full Name of third Inventor: Robert P. Vaudo

Inventor's Signature



Date 4-6-98

Residence: 62 Beard Drive, New Milford, Connecticut 06776

Citizenship: USA 19 Pleasant View Rd.

Post Office Address: 62 Beard Drive, New Milford, Connecticut 06776

19 Pleasant View Rd.
R.R. 1.

ASSIGNMENT

Michael A. Tischler, Thomas F. Kuech and Robert P. Vaudo have made an invention described in the U.S. Patent Application entitled:

“Bulk Single Crystal Gallium Nitride and Method of Making Same”
(Title of patent application)

which is described in U.S. Application No. 08/955,168 filed October 21, 1997 in the United States Patent and Trademark Office.

We assign to Advanced Technology Materials, Inc., 7 Commerce Drive, Danbury, Connecticut 06810 all of our ownership and rights in:

- (i) the invention and U.S. Patent Application;
- (ii) U.S. Patents on the invention; and
- (iii) corresponding foreign patent applications and patents.

We are making this assignment based on our employment and/or consultative relationship with Advanced Technology Materials, Inc.

We request the Commissioner of Patents and Trademarks of the United States and the appropriate officers of all foreign countries to issue patents on the invention to:

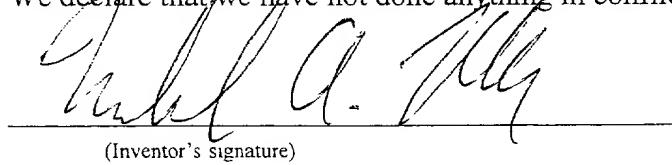
Advanced Technology Materials, Inc.
(Corporate name)

We agree to execute any other legal documents that may be required to effectuate this Assignment.

We agree that we will promptly communicate to Advanced Technology Materials, Inc. all facts which come to our attention affecting the invention or patent rights.

We agree that we will testify in any interference or litigation involving the invention or patent rights.

We declare that we have not done anything in conflict with this Assignment.

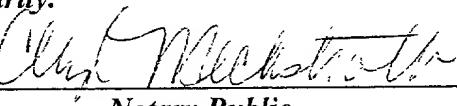

(Inventor's signature)

3/30/98
Date

Inventor's name: Michael A. Tischler

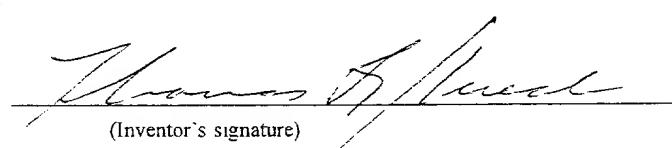
State of:  **OFFICIAL SEAL**
Cheryl Meekstroth
County of: **NOTARY PUBLIC-ARIZONA**
MARICOPA COUNTY
My Commission Expires Aug. 18, 2001

Michael A. Tischler appeared before me on 3/30, 1998. He declared to me that he is the person described in this Assignment. He executed this Assignment before me, and declared that his execution was completely voluntarily.


Notary Public

(SEAL)

My commission expires:


(Inventor's signature)

3-24-98
Date

Inventor's name: Thomas F. Kuech

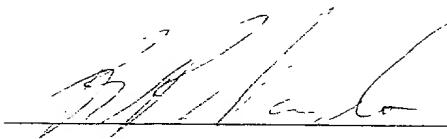
State of: Wisconsin
County of: DANE

Thomas F. Kuech appeared before me on March 24, 1998. He declared to me that he is the person described in this Assignment. He executed this Assignment before me, and declared that his execution was completely voluntarily.


Notary Public

(SEAL)

My commission expires: 8/9/98



(Inventor's signature)

7/6/98

Date

Inventor's name: Robert P. Vaudo

State of: Connecticut

County of: Fairfield

Robert P. Vaudo appeared before me on April 6, 1997. He declared to me that he is the person described in this Assignment. He executed this Assignment before me, and declared that his execution was completely voluntarily.



Notary Public

(SEAL)

My commission expires: 4 - 30 -02